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ABSTRACT

One instrument, the Job Descriptive Index (JDI), used for indexing job satisfaction is described in this paper. The techniques for analyzing and using the data collected by administering this instrument are also presented. The JDI measures job satisfaction in the areas of pay, promotion, supervision, work, and people on the job. This paper includes: (1) the criteria for selecting an instrument for measuring job satisfaction, (2) a heuristic model for determining job attitudes, (3) a heuristic model for measuring employee attitudes, (4) a model illustrating actual employee attitudes in a specific organization and (5) an illustration of the dynamic nature of individual employee's feelings about his job. (Related studies are: LI003816 and LI003818 through 003821). (Author/NH)

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A CONCEPTUAL FRAMEWORK FOR MONITORING JOB SATISFACTIONS IN ON-GOING ORGANIZATIONS

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A CONCEPTUAL FRAMEWORK FOR MONITORING JOB SATISFACTIONS IN ON-GOING ORGANIZATIONS*

Today, the literature abounds with studies deriving their substance from the assumption that attitudinal phenomena do exist; that behavioral consequences are somehow interrelated with the states-of-mind possessed by employees; and that management can improve organizational effectiveness by paying attention to the feelings of its employees. Strangely, however, the belief that feelings affect behavior is not fully supported by information coming from carefully designed research studies that have been conducted in on-going work organizations. Few such studies have been done.

Why have so few carefully designed job satisfaction research studies been conducted in on-going work organizations? There are many reasons among which the following three are particularly important: 1) Until recently, satisfactory instruments have not been available for indexing an employee's satisfaction with his job. 2) Organization managers have been reluctant to cooperate with those conducting research in functioning organizations because of the time required for such participation. 3) Organizations do not always have readily available the essential data necessary for carefully designed job satisfaction research. For example, information about age, sex, tenure, ethnic group, etc., may have never been collected; and, if it has been assembled, it may not be stored in a manner that will permit easy and inexpensive access for purposes of research.

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*This is the second of a series of articles reporting results of the North Texas State University Research Studies in Job Satisfaction. This research is financed by a North Texas State University Faculty Research Grant made to Dr. J. D. Dunn.

As important as the above matters are, they are overshadowed by still another major impediment to job satisfaction research: the lack of a theory, or theories, of job satisfaction. Because of the absence of an acceptable theory, job satisfaction data, once collected, is often not used by the managers of organizations. Managers do not know how to analyze the data and make decisions based upon their findings. In this paper one instrument for indexing job satisfaction will be described, and techniques for analyzing and using the data collected by administering this instrument will be presented.

The Criteria For Selecting An Instrument For Measuring Job Satisfaction

Many instruments for measuring job satisfaction have been devised. When selecting an instrument for measuring job satisfaction, the following criteria may be used:

1. It should index the several dimensions of job satisfaction rather than an "over-all" (global) dimension.
2. It should be applicable to a wide variety of jobs.
3. It should be sensitive to variations in attitude.
4. The instrument used should be of such a nature (interesting, realistic, and varied) that the scale will evoke cooperation from both management and employees.
5. The index should be reliable.
6. The index should be valid.
7. The index should be brief and easily scored.
8. Normative data should be available.

In the North Texas State University Research Studies in Job Satisfaction the Job Descriptive Index (JDI) was used. The JDI meets all of the above

criteria.* The JDI measures job satisfaction in the areas of pay, promotion, supervision, work, and people on the job. Each of the five scales are presented on a separate page. The instructions for each scale ask the subject to put a "Y" beside an item if the item describes the particular aspect of his job (i.e. work, pay, etc.), "N" if the item does not describe that aspect, or "?" if he cannot decide. A completed JDI (hypothetical) is shown in Figure 1.

Figure 1
The Job Descriptive Index (JDI)

A Heuristic Model For The Determination Of Job Attitudes

An attitude universe can be defined as the set of responses comprised in a given attitude. These responses need not be similar in response quality but will generally be identifiable in terms of their congruence with the overall (gestalt) pattern of responses inherent in the whole attitude. A favorable attitude toward one's job may be manifested by a low rate of absenteeism or refusal to participate in work stoppages or slowdowns. Both the low rate of absenteeism and the refusal to engage in anti-management activity belong, in this simplified example, to the same attitude universe. It is the task of the attitude researcher to discover the prevailing patterns of employee attitudes in on-going organizations. By discovering and mapping such attitude universes the efficacy of the

*For detailed information about the JDI see: Patricia Cain Smith, Lorne M. Kendall, Charles L. Hulin, The Measurement of Satisfaction in Work and Retirement: A Strategy for the Study of Attitudes, Chicago: Rand McNally & Company, 1969. For information comparing the JDI with other instruments for measuring satisfaction, see: John P. Robinson, Robert Athanasiou, Kendra B. Head, Measures of Occupational Attitudes and Occupational Characteristics (Appendix A to Measures of Political Attitudes), Survey Research Center, Institute for Social Research, University of Michigan, February, 1969, p. 104.

management process can thereby be considerably strengthened through the infusion of such knowledge throughout all levels of management.

In making use of such knowledge for the purpose of strengthening the management process in on-going organizations certain limitations inherent in the management process should be carefully observed. Managerial vision will remain clouded and obscured by diversity of opinion so long as the underlying universes of attitudes are examined on an individual rather than a group basis. And here is where paradox creeps in. In order to impose system and order (organization) upon an assemblage of men and materials it is necessary to organize the data group-wise. Certain statistical techniques must be utilized in the search for managerial knowledge. But once knowledge of attitude universes has been achieved through the application of statistical and other methods, management must apply such original knowledge on a derivative, i.e., individual basis.

Although this may sound confusing, the overall implications for management theory and practice are not difficult to discern. For example, if our survey of employee attitudes shows favorable attitudes in general of the employees toward supervision, this fact would certainly have a bearing upon the feasibility of a contemplated program of managerial action designed to improve the opinion of employees vis-à-vis their supervisors. Funds earmarked for this program of action might be more advantageously expended on a parallel program of action having as its goal the improvement of employee opinion vis-à-vis promotion. This assumes, of course, that the same attitude survey which discovered favorable employee attitudes (opinions) toward supervision, also revealed a low state of employee morale in the area of promotional opportunities.

Managerial policy is based upon a unified vision of the goals of the organization. An employee's actions, unfortunately, are based upon no such sweeping vision or foresight. Usually, the typical employee finds himself divided internally in his opinions and attitudes. The Schoolmen recognized this dilemma of the layman in their writings, circa tenth century A.D. Although the teachings of the Scholastics were oriented to the Established Church and its basic doctrines the principles underlying the programs of action contemplated by the church can profitably be examined from the viewpoint of modern management theory and practice.

The early Scholastics believed that every orthodoxy, not only the medieval, rests upon the indolence and docility of the majority. The opposition to authority does not cease because the majority are tolerant, but because they are divided in their opinions (attitudes) as to what to oppose. The great victory of intelligence was won when it divided the majority against themselves and left them to a puzzled acquiescence in contradictory opinions.

This expression of early Scholastic thinking on the art of management has since been thoroughly discredited. The idea of dividing the laity through the espousal of conflicting opinions never gained much currency, not even during the tenth century, but even today this underlying current of thinking continues to disturb the even development and evolution of management theory. For it remains as true today, as then, that ideas which find expression in formal theories of established authorities sometimes are encountered in many variant forms at the level of practical action. How, then, can the opinions of employees be indexed?

Figure 2 is suggestive only. It is not meant to represent the full range and complexity of job satisfaction research, suggested by the use

Figure 2
A Heuristic Model For Measuring Employee Attitudes

of Patricia Cain Smith's JDI. But Figure 2 can be used by researchers interested in organizing the results of attitudes surveys into meaningful interpretative patterns. Such patterns are of interest to management and supervision because they are one indication of the states-of-mind governing employees. Behavioral consequences result from the overall interplay of attitudes possessed by a given group of employees in a given work setting. This assertation states a fundamental postulate of managerial thinking in regard to the value and validity of job satisfaction research.

Figure 2 assumes that all employees have measurable feelings about five dimensions of their jobs, viz., work, pay, promotion, supervision, and coworkers. Patricia Cain Smith's JDI provides management with a method of discovering the states-of-mind of employees. Although deceptively simple in appearance the JDI is a powerful instrument for eliciting from respondents indications of the attitudes or opinions they hold. Characteristically, the JDI stimuli are verbal statements concerning some issue, principle, class of persons, or job situation, with each of which the respondent expresses agreement or disagreement.

The JDI attitude scales, as shown in Figure 2, are composed of five categories, viz., work, pay, promotion, supervision, and coworkers. Three of the attitude scales of the JDI consist of eighteen (18) descriptive assertations about the job. These scales deal with work, supervision, and coworkers. Two of the JDI attitude scales consist of nine (9) descriptive assertions about the job. These scales cover pay and promotion opportunities. It is necessary, therefore, to double the scores on the pay and promotion attitude scales in order to place these scales on a basis

of comparability. Once this minor technical adjustment is accomplished the five quantitative scales of the JDI can be manipulated to bring out the salient features of the data.

The rationale of the Smith type of attitude scale rests upon the assumption that verbal statements of opinion can be sought as a revelation of attitude. The statements used in the Smith type of attitude scale are descriptive in nature. This approach eschews the evaluative approach. Thus the employee is asked to describe his job by answering positively or negatively a series of descriptive statements characterizing his job. He is expressly requested not to evaluate his job as being either good or bad.

The Smith approach to the establishment of attitudes of employees has the virtue of simplicity. In this respect the Smith theory could be labelled the Occam's Razor favorite of job satisfaction research. This scientific rule of thumb enjoins the usage of the minimum number of conceptual categories to describe a given set of phenomena, consistent with full economy of explanation and description.

Smith's conceptual categories are economical, yet they cover the full spectrum of the usual configuration of job-related categories. Many of the descriptive statements consist of a single word or phrase. By applying appropriate weights to the descriptive categories comprising each of the individual attitude scales of the JDI, complete quantitative entities can be constructed which, when manipulated according to the purposes at hand, expose the underlying framework of employee attitudes in the given organization.

The Smith type of attitude scale compares favorably to the leading three types of attitude scales. The Thurstone type of attitude scale

uses a number of statements representing different degrees of strength of the attitude. Thus the statement "All wars are totally unjustified" represents a stronger pacifist attitude than "Wars of defense, if unavoidable, are morally justified." In the Thurstone (type of) attitude scale statements are selected to form a series of equal steps along the dimension of attitude-strength. The respondent indicates simple agreement or disagreement.

The Likert (type of) attitude scale asks for degree of agreement with each statement; the statements themselves need not be equally spaced to show strength of attitude. Respondents need not express themselves on a descriptive bases, but are free to select predetermined classifications which constitute the full range of facultative options normally used to indicate the degree or intensity of feelings selected to characterize the job milieu.

The Guttman or Cornell scale of attitudes utilizes a complicated schema in which statements are so composed that agreement with one implies agreement with all others "lower" on the scale, "higher" and "lower" being in terms of attitude strength rather than logical inclusiveness. The Guttman scale was once very popular in satisfaction research, primarily because of its technical precision which seemed to enhance the validity of the final quantitative scoring scales which were useful in determining the relativistic rankings or priorities attaching to each of the several job-related categories.

Smith's attitude scales are based upon a combination of the Thurstone, Likert, and Guttman attitude scales. However, the Smith scales are unique in that the construction of the scales started with the basic assumption that evaluative statements were relatively useless in establishing states

of mind. Thus, a statement by an employee that "My job is a good one" would not appear in any of the Smith attitude scales because this assertion by the employee about his job is evaluative in nature. Smith would merely list the word "good" in the list of adjectives and phrases making up the work scale of the JDI. The employee would then fill in Y (for Yes), N (for No), or ? (for indicating a state-of-mind of complete indecision) beside this word.

Figure 2 illustrates the Smith (type of) attitude scales. Each of the five sectors of the diagram represents the full range of scoring possibilities for that given dimension of the job. Thus, any employee of Organization X can score anywhere from zero to a maximum of 54 on each of the Smith attitude scales. In this preliminary diagram it is assumed that each employee's scores are represented by the vertical line extending upwards from the horizontal line. Thus Employee A's total score can be simply computed as five times fifty-four or 270. This latter figure represents the maximum score possible on the total dimension of the JDI attitude scales.

Employee G (Figure 2) has a total JDI score about half the magnitude of Employee A. We obtain this figure by measuring the total height of the vertical line at point G along the abscissa. This length (G-G') gives management a pretty fair indication of the psychological state of mind of Employee G vis-à-vis the discriminable aspects of his job in Organization X.

Employee L (Figure 2) is the most disgruntled employee in Organization X. The total height of the vertical line erected at point L on the abscissa (L-L') is miniscule, in comparison with all the other vertical lines. Obviously Employee L is disturbed about many things in Organization X. He doesn't like his work. He apparently has a negative attitude

about his pay. To his way of thinking his chances for promotion are nil. He believes his supervision is very poor. He does not like nor get along very well with his coworkers, as indicated by the small length of L-L'measuring this aspect of his job.

If nothing else were known about employee L a pretty safe assumption would be that he would leave Organization X in fairly quick order! The only real issue would be whether he left voluntarily or involuntarily. Either way Employee L would become another statistic in the turnover records of Organization X. And turnover is expensive to any organization.

Employee A (Figure 2), in comparison with Employee L, should have a much better chance of success on the job in Organization X. His states-of-mind vis-à-vis the discriminable aspects of his job register at each of the maximum points possible on the Smith JDI attitude scales. A safe assumption would be that Employee A will prosper and succeed on the job in Organization X. This prediction rests on the further assumption that a higher score on any one of the Smith JDI attitude scales is preferable to a lower score.

It must be remembered that Figure 2 is not meant to represent the actual state of affairs in Organization X. The heuristic model depicted in Figure 2 is only an introduction to the complexities inherent in any attempt to capture the full range of psychological states-of-mind in Organization X.

A somewhat closer approach to reality in Organization X is shown in Figure 3. Employee A has high feelings about work, pay and promotion.

Figure 3
A Model Illustrating Actual Employee Attitudes in Organization X

His feelings about coworkers and supervision are relatively lower.

Employee B (Figure 3) exhibits a curious pattern of job feelings. He is very satisfied with his pay. He tends to get along all right with his coworkers, but his relations with his supervisors are equivocal, as shown by the low score on this JDI attitude scale. Employee B thinks his job is a dead-end situation, as revealed by the extremely low score on the promotion scale of the JDI. Also, Employee B is not too enamored of the work involved in his job. It is obvious that primarily two things are acting to keep Employee B on his job, viz., the pay (which he likes) and his coworkers (whom he also likes).

In Employee B's case we see, in somewhat exaggerated fashion, the ambivalence in feelings which an employee often experiences about his job. Ambivalence, in this instance, can be defined as a tendency to be pulled in psychologically opposite directions. A synonymous expression for ambivalence is bipolarity of feeling. This polarization of feelings into bipolar categories which can be roughly characterized as "good" or "bad" is one reason why job satisfaction research can often serve a useful function in predicting whether an employee will stay with or leave an organization. It is possible to group all the "good" feelings about one pole which represents (symbolically) the complex network of forces tending to unite the employee and his job. It is also possible to group all the "bad" feelings about another pole which represents (again, symbolically) the intricate network of forces tending to separate an employee from his job. Ambivalence in feelings thus serves as an indicator or rough gauge of the probabilities that an employee will/will not stay with his organization.

Employee C (Figure 3) possesses an attitudinal pattern of feelings which is roughly the reverse of that of Employee A. A smooth progression

of ambivalency in feelings ranges from "lows" in work and pay to "highs" in coworkers and supervision. Whether Employee C will leave the organization vel non will depend upon his order of priorities in regard to the five Smith JDI attitudes. If Employee C, e.g., values the type of work he does very highly, then it is likely that he will leave the organization eventually since his feeling about the type of work he does in Organization X is very unfavorable, as shown by his low score in this category (work) of the JDI. On the other hand, if Employee C values supervision highly, then it is likely he will stay with Organization X since his score on this aspect of the JDI was very high. Whether Employee C will, in fact, leave or stay with Organization X will depend upon a very delicate balance-sheet accounting of these positive and negative feelings which he experiences about the discriminable aspects of his job.

A similar analysis can be made of the feelings of Employees D, E, and F (Figure 3). The point is, of course, that ambivalency (bipolarity of feelings) does exist, in nearly every individual case. It is very seldom that an employee will score highly on all scales of the JDI. More often, he will score highly on some scales, but register lower on other scales of the JDI. It is very important for management to continuously monitor ambivalency in feelings experienced by employees. Absenteeism and turnover constitute only two of the behavioral consequences of bi-polarity of feelings. Such ambiversion (in attitudes) can often lead to behavioral consequences not in keeping with the overall objectives of the organization nor with the ultimate goal of organizational effectiveness.

In Figure 4 is shown an elaboration of the situation depicted in

Figure 4
Illustrating the Dynamic Nature of Individual Employee's Feelings About His Job

Figure 3. The latter figure assumed different mix of states-of-mind for different employees. Figure 4 assumes that the "mix" of states-of-mind will change dynamically for a given employee over a period of (indefinite) time.

Thus, early in his work career Employee A, at time t_1, may value the type of work he performs very highly, as shown by his high score on this category of the JDI. Conversely, he values the quality of his supervision very low.

At time t_3, presumably down-stream in his work career, intermediate between commencement of work and retirement, Employee A's patterns of feelings are completely reversed from his initial pattern at time t_1. During time t_1-t_3 Employee A has completely switched his order of priorities. Now he values supervision highly, but rank-orders the (type of) work he does relatively lower.

The implications are clear for management: Attitudes of employees are subject to change over time. There is no such thing as a static attitude. This is why continuous monitoring of employee attitudes is a necessity. If management wants to keep abreast of the changing tides in employee feelings, a definite schedule of testing must be arranged. The JDI, because of its extremely simple method of eliciting employee attitudes, can be usefully and conveniently employed to gauge the feelings, reactions, and overall tone and tenor of psychological states-of-mind existent in a wide range of organizational situations.

Figure 1. The Job Descriptive Index (JDI)*

Work		Supervision		People	
Y	Fascinating	Y	Asks my advice	Y	Stimulating
N	Routine	N	Hard to please	N	Boring
Y	Satisfying	N	Impolite	N	Slow
N	Boring	Y	Praises good work	Y	Ambitious
Y	Good	Y	Tactful	N	Stupid
Y	Creative	Y	Influential	Y	Responsible
Y	Respected	Y	Up-to-date	Y	Fast
N	Hot	N	Doesn't supervise enough	Y	Intelligent
Y	Pleasant	N	Quick-tempered	N	Easy to make enemies
Y	Useful	Y	Tells me where I stand	N	Talk too much
N	Tiresome	N	Annoying	Y	Smart
Y	Healthful	N	Stubborn	N	Lazy
Y	Challenging	Y	Knows job well	N	Unpleasant
N	On your feet	N	Bad	N	No privacy
N	Frustrating	Y	Intelligent	Y	Active
N	Simple	Y	Leaves me on my own	N	Narrow interests
N	Endless	Y	Around when needed	Y	Loyal
Y	Gives sense of accomplishment	N	Lazy	N	Hard to meet

Pay		Promotions	
Y	Income adequate for normal expenses	Y	Good opportunity for advancement
Y	Satisfactory profit sharing	N	Opportunity somewhat limited
N	Barely live on income	Y	Promotion on ability
N	Bad	N	Dead-end job
Y	Income provides luxuries	Y	Good chance for promotion
N	Insecure	N	Unfair promotion policy
N	Less than I deserve	N	Infrequent promotions
Y	Highly paid	Y	Regular promotions
N	Underpaid	Y	Fairly good chance for promotion

*Copyrighted 1962 by Patricia Cain Smith. For further information about the JDI see Patricia Cain Smith, Lorne M. Kendall, Charles L. Hulin, The Measurement of Satisfaction in Work and Retirement: A Strategy for the Study of Attitudes, Chicago: Rand McNally & Company, 1969. Permission to use the JDI must obtained from Patricia Cain Smith.

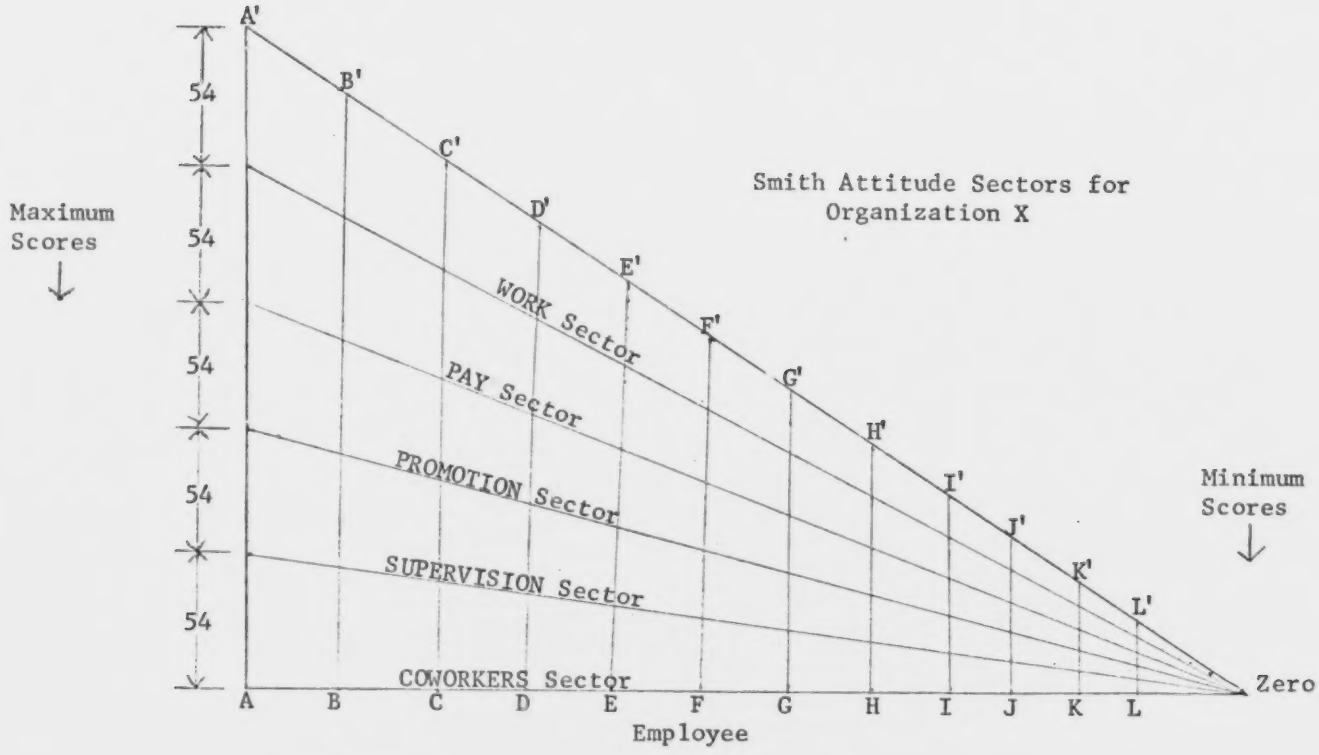

Figure 2. A Heuristic Model for Measuring Employee Attitudes

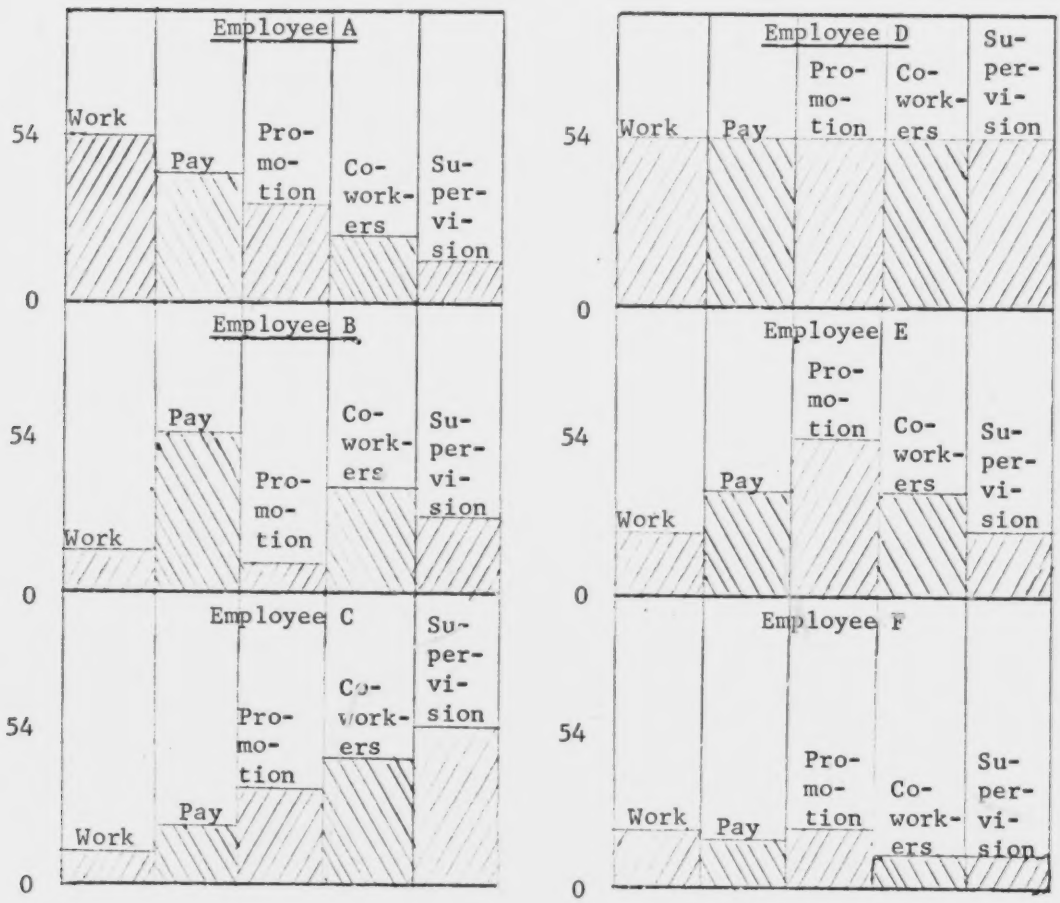

Figure 3. A Model Illustrating Actual Employee Attitudes in Organization X

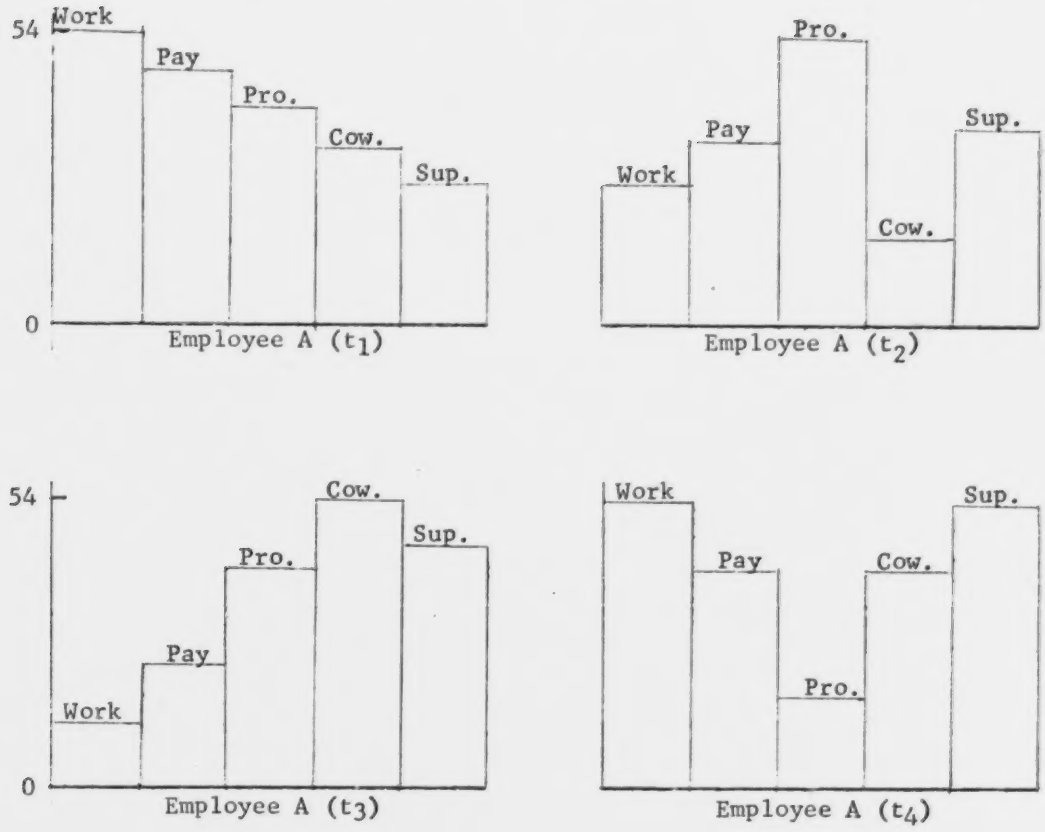

Figure 4. Illustrating the Dynamic Nature of Individual Employee's Feelings About His Job
Note: t_1=time 1; t_2=time 2, etc.